THE COVEY HEADQUARTERS

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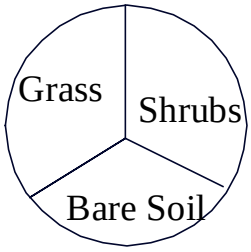
This newsletter is aimed at cooperators and sports-people in Missouri to provide information on restoring quail. This is a joint effort of the Missouri Department of Conservation, USDA-Natural Resources Conservation Service, and University of Missouri Extension. If you would like to be removed from this mailing list or have suggestions for future articles please contact jeff.powelson@mdc.mo.gov or 816-232-6555 x122 or write to the address shown.



The name of this newsletter is taken from an old concept.....that a quail covey operates from a headquarters (shrubby cover). If the rest of the covey's habitat needs are nearby, a covey should be present. We are encouraging landowners to manage their quail habitat according to this concept. Use **shrubs** as the cornerstone for your quail management efforts. Manage for a **diverse grass, broadleaf weed and legume mixture and provide bare ground** with row crops, food plots or light disking **right next to** the shrubby area.

A New Idea for a Growing Problem

Scott Sudkamp, MDC Small Game Coordinator

In the early 1930s, duck hunters across America faced a bleak future. Years of drought, coupled with an unprecedented rate of habitat loss, had conspired to reduce duck populations to a fraction of what they had been only a few decades before. Hunters wondered what would even be left in another few years if conditions didn't improve. But how could the situation be reversed and habitats be restored? Even if rain returned to the prairie, would there be any place left for the hens to nest?

In 1934, J.N. "Ding" Darling proposed an answer. His answer came in the form of a user-pay system known as the Federal Duck Stamp. Under Darling's proposal, waterfowl hunters nationwide would be required to purchase a hunting stamp to pursue their quarry. Monies collected through stamp sales would then be earmarked for conservation purposes and redistributed to the states for habitat improvements, including the purchase of land for waterfowl production and conservation. Now, 80 years later, Duck Stamp sales have raised over $800 million and helped add over 6 million acres to the National Wildlife Refuge system.

Re-read that first paragraph. Sound familiar? Today upland gamebird populations are declining almost everywhere. Back in the day, upland bird production was a happy by-product of the way that farms were managed all across America. No one did much purposeful management to promote quail, or pheasants, or sharptails, but the birds found what they needed on farms repeated over counties and states. Today, of course, that situation has changed. The reasons today's farm landscapes are largely unsuited to gamebird production can be discussed elsewhere, but if you've been an upland hunter for very many years you know that this is the case.

So what can we do about it? The Conservation Reserve Program is arguably the best program going with potential for upland habitat improvements. In many instances, CRP has helped. And in Missouri at least, CRP rules for cover establishment and management have certainly improved over the years since the program's inception. But still, upland game populations continue to dwindle, or at best hold steady. Visit with most wildlife biologists and they'll agree that the main culprit in continued population declines is not

enough suitable habitat. While it may seem there are lots of acres enrolled in CRP, those numbers are declining, and biologists who study and manage upland game will tell you that we need entire landscapes of good habitat for populations to rebound. But affecting change on a landscape scale costs serious cash. How could we pay for the improvements needed?

Looking to the Federal Duck Stamp model, some folks think they may have an answer. In an article published on the Ultimate Upland website in March of this year, authors Christine Cunningham and Brian Koch have proposed a possible solution: a Federal Upland Stamp (see http://www.ultimateuplandnews.com/its-time-for-the-federal-upland-stamp/). The authors envision a stamp that would be required for hunters pursuing upland gamebirds, with revenues collected going back to the states for habitat work to benefit quail, pheasants, grouse, and other upland species.

This proposed stamp is not without controversy. Some detractors have argued that this model promotes federal overreach on states' rights, since most upland gamebirds are resident, rather than migratory. Others assert that it would be unfair for states with large numbers of upland hunters to have to send their hunters' fees to states with fewer sportsmen. Still others argue that an additional fee will chase upland hunters from the sport. These are valid concerns, and are worthy of consideration and contemplation. Biological differences between upland birds and waterfowl create some fundamental dilemmas regarding how to disburse collected funds. These issues will need to be worked out, but several supporters have suggested that stamp fees might be distributed back to the states using a model such that used for Pittman-Robertson funds, where fees are collected by the US Fish & Wildlife Service then redistributed to the states based on a formula that takes into account the number of hunting license holders and the state's area.

While we don't have a crystal ball with which to see the future, I hope that critics will realize the situation we're in and put this in perspective. Consider that the opportunity to act is waning. At the recent National Bobwhite Technical Committee meeting, it was announced that Pennsylvania now considers wild bobwhites extirpated. Other states on the fringe of the species' range could soon follow. Even where the likelihood of extirpation is slim, populations could still shrink to the point of 'recreational extinction'. Would populations collapse if we had another series of winters like we saw in the late 70s? If the stamp were created and sold at a cost of $15, that would be less than the cost of two boxes of premium shotgun shells. Chances are that most hunters spend $15 or more in fuel just to get to their hunting spot and back. I hope that most upland hunters would spend an extra $15 to ensure that future generations can experience the same thrills they have: pointing dogs, fast flushes, and good shooting.

To learn more about the proposed stamp or to sign the petition to support its creation, visit http://www.ultimateuplandnews.com/making-the-upland-stamp-work/ and/or http://www.uplandstamp.org/facts.html .

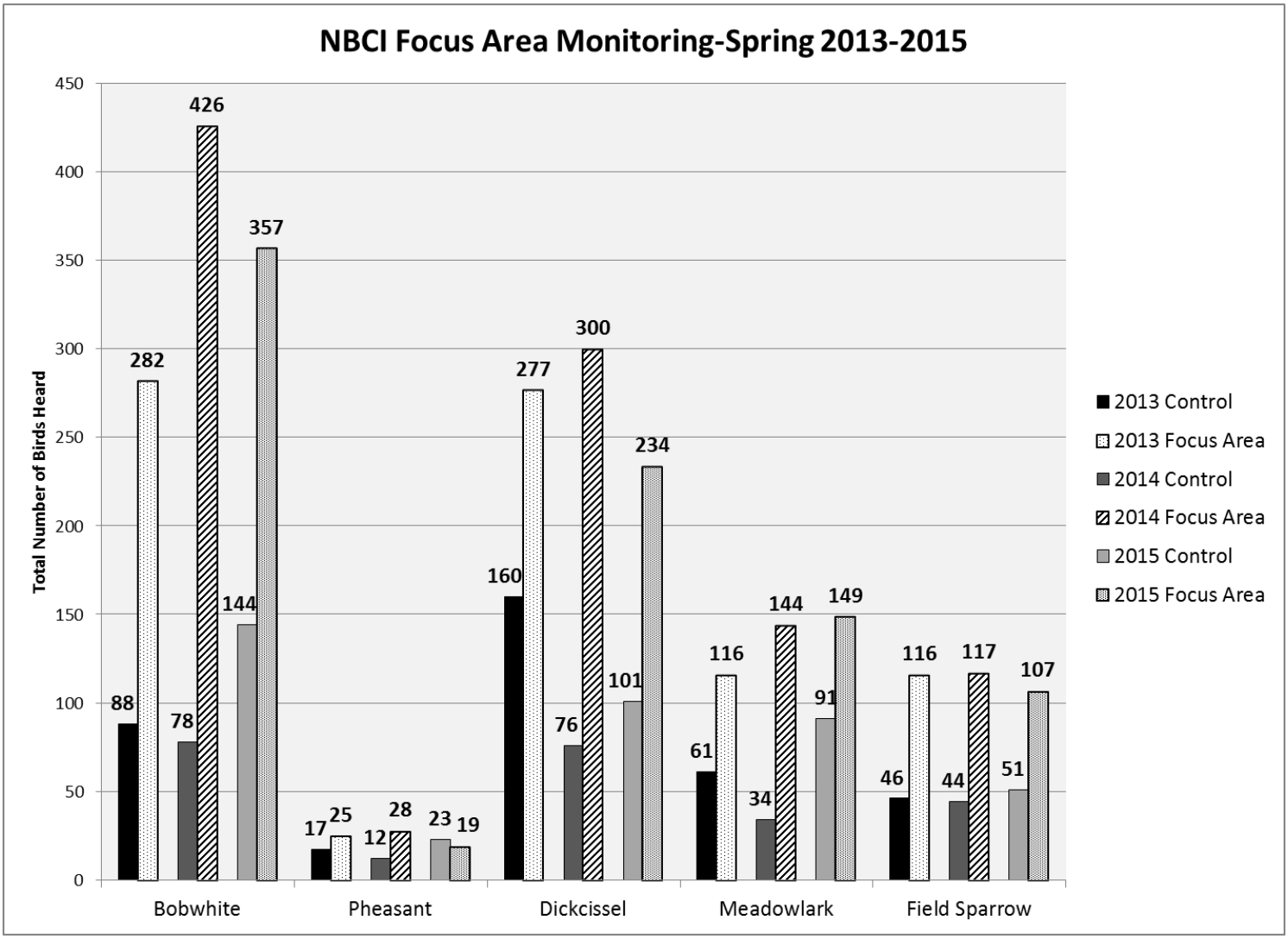
2C Quail Focus Area Monitoring Update

Beth Emmerich, Resource Scientist and Lee Metcalf, Private Land Conservationist

In spring of 2013, a group of MDC staff and Quail Forever biologists began monitoring quail and songbirds in a portion of the 2C Quail Focus Area in Carroll County. The focus area was named "2C" because it covers a large portion of both Carroll and Caldwell counties. This effort is part of a pilot study to start a "Coordinated Implementation Plan" developed by the National Bobwhite Technical Committee as a part of the National Bobwhite Conservation Initiative or NBCI. The NBCI is a unified effort of 25 state fish and wildlife agencies and conservation partners to restore wild populations of bobwhite quail. The goal of the monitoring plan is to document within 5-10 years, if quail habitat management can achieve sustainable bobwhite populations.

In June, we conducted our third year of breeding bird monitoring. According to Pat Guinan, University of Missouri extension climatologist, we could have the wettest May to July period on record. The preliminary data shows that the average rainfall was 22.41 inches, and the record was 22.55 in 1981. Those

numbers could change when all of the data comes in. This year, we saw decreases in all of the species that we are monitoring in the 2C Focus Area, except for the Eastern Meadowlark. It was interesting to note that there were increases in all of the species monitoring in the control areas. There could be several reasons for the increase. The wet weather delayed haying quite a bit, which likely increased available nesting habitat for many of these grassland species. Also, the wet weather has resulted in fewer crops being planted this year. Missouri farmers lead the nation in prevented planting acres with 506,000 acres of corn and 1.02 million acres of beans. These fields can grow up in weeds and provide excellent brood cover for many bird species. Even though the number of calling male bobwhites was a little lower in the focus area this year, more birds may have been incubating nests, rather than calling to attract new mates in attempts to re-nest after loss of a nest. So far, area landowners are reporting seeing increased numbers of quail, pheasants, and rabbits. We look forward to conducting our fall covey counts in October!



Fall Covey Headquarter Calendar

September
Begin burning native grass plantings to encourage wildflowers and set back thick grass.
Till firebreaks and new food plot areas prior to the onset of winter weather.
Seed wheat, barley or rye into tilled firebreaks or food plots.
Spray brome and fescue – eliminate these grasses from shrub thickets, fencelines and field edges.

October
Prepare areas for edge feathering by spraying brome and fescue where trees will drop.
Conduct quail covey counts this month.
Disk your CRP acres this month to promote broadleaf plants.
Spray native warm-season grasses for invading brome and fescue after a killing frost.
Prepare ground for spring shrub plantings.

November
Dormant seed CRP grasses and wildflowers starting Nov. 15th.
Begin edge feathering operations and continue through March – build new homes for quail!
Order your covey headquarter shrubs from the MDC nursery through May. Blackberry, shrub dogwoods, wild plum, and false indigo bush are best for quail.

Small Game Hunting Prospects

Check out the 2015-16 edition of Small Game Hunting Prospects located on the Missouri Department of Conservation website –

http://huntfish.mdc.mo.gov/sites/default/files/downloads/SmallGameHuntingProspects.pdf

This guide is intended as an introduction to new small game hunters looking for information to help them get started, but should appeal to seasoned hunters as well.

In addition to the pdf version, each species' information can be accessed as a webpage. Click on the Hunting/Trapping tab, then Species A-Z to access each species' individual page - http://huntfish.mdc.mo.gov/hunting-trapping/species, then click the Getting Started icon or link.

This year's version contains updated information for all of the species featured last year, as well as new locations in the recommended Places to Go section for each species. New this year are pages featuring information on hunting crows, raccoons, and predators (coyote, bobcat, and foxes). QEA Managers' Notes features information about those Quail Emphasis Areas that were not covered last year, and we've added a new Grab Bag section for miscellaneous small game topics of interest as well.

Update to Southwest Missouri Quail Demographics Study

Frank Loncarich, Wildlife Management Biologist

The old adage "what a difference a year makes" has never been truer than when used to describe the 2015 breeding season. Recall that in 2014 we saw nest success rates of between 35% and 41% on 3 sites and a whopping 55% nest success rate on Stony Point Prairie (see Figure 1). We observed excellent reproductive effort and good brood survival resulting in decent to good fall covey numbers across the study sites. Contrast those results to this year where we are seeing very poor reproductive effort on 2 sites and disappointing nest success across the board, except for Wah Kon Tah (see Figure 2). Remember, the objective of our study is to document why large, native grassland landscapes routinely produce more quail than sites managed in a traditional manner where food plots and woody cover are emphasized. We are conducting our work on 2 traditionally managed sites and 3 grassland

dominated sites. We had an opportunity this year to add Wah Kon Tah prairie in St. Clair County as a study site and it has proven an excellent addition.

Figure 1. Nesting data for each of the 4 study sites through September 30th, 2014.

Area	# Nests	# Incubating	# Destroyed	# Hatched	% Success
Talbot (T)	32	0	20	12	38
Shawnee Trail (T)	17	0	11	6	35
Shelton (G)	27	0	16	11	41
Stony Pt (G)	31	0	14	17	55

T = traditionally managed site; G = Grassland dominated site

Figure 2. Nesting data for each of the 5 study sites through August 20th, 2015.

Area	# Nests	# Incubating	# Destroyed	# Hatched	% Success
Talbot (T)	7	1	5	1	17
Shawnee Trail (T)	4	0	4	0	0
Shelton (G)	16	2	12	2	14
Stony Pt (G)	45	7	26	12	32
Wah Kon-Tah (G)	23	4	11	8	42

T = traditionally managed site; G = Grassland dominated site

The disparity in reproductive success from year to year is not surprising. We know that weather and other factors not well understood greatly impact quail breeding success resulting in boom years and bust years. Southwest Missouri saw multiple heavy rain events right during the peak of nesting season this year (including between 2.5" and 4" on August 18). This heavy rain resulted in higher mortality of adult birds and lower nest success, likely due to birds moving more to escape waterlogged habitats and better scenting conditions for predators resulting in more wet hens and nests being located. So, we were expecting lower than average nest success. However, what is alarming is the poor reproductive *effort* we are seeing on the traditionally managed sites. Females on these 2 sites are just not producing nests (see Figure 3). This is troubling as it forecasts below average covey numbers and hunting success this fall.

Figure 3. 2015 nests per hen

Study Site	Nests per Hen on Air
Talbot (T)	0.5
Shawnee Trail (T)	0.4
Stony Point Prairie (G)	1.7
Shelton Prairie (G)	1.6
Wah Kon Tah Prairie (G)	1.8

T = traditionally managed site; G = Grassland dominated site

So, why is nesting effort so much poorer on traditionally managed sites this year? That is a question that will take more investigation but reduced reproductive effort on traditionally managed sites compared to grassland sites has been observed over the 3 previous years of this study. We have consistently noted, on average, more nests produced, earlier nesting effort, and more eggs per nest on grassland managed sites. This results in more chicks hatched and a potential to have higher covey numbers come fall. We do not know what is causing the disparity in reproductive output. One thought is that birds living in diverse native grassland landscapes have greater food resources during the winter and early spring than

do bids on traditionally managed sites that typically have poor herbaceous diversity. We will be looking into this further in the next couple of years with some analysis of bird health.

The results of this study are revealing some very surprising and troubling things about nesting effort and success on some of our study sites, information that we have never known before. This is good news in that it validates the design of our study and reinforces the need to question our understanding of quail population dynamics in today's landscape. It also forces us to critically evaluate our quail management efforts on public land.

I will keep readers posted on the progress of our work in future issues. What we are observing in terms of brood movement and habitat use is also very interesting and could have a huge impact on how we manage brood habitat going forward. Stay tuned!

MDC biologists manage habitat to help prairie chickens through wet weather

Hard rains and cool conditions in early summer are not optimal conditions for Missouri's endangered prairie chickens to nest and raise broods. Unusually wet weather befell western Missouri this nesting season. What's good for many native prairie grasses and wildflowers can be a hindrance to ground-nesting birds. But Missouri Department of Conservation (MDC) biologists are hopeful that habitat improvements in recent years will help the iconic grassland grouse hold their numbers steady.

Biologists have spotted some hens with young broods at Dunn Ranch and the Pawnee Prairie Conservation Area in Harrison County in northwest Missouri. The Nature Conservancy's Dunn Ranch and MDC's Pawnee Prairie are at the heart of a broad conservation focus area called the Grand River Grasslands.

Given the weather, finding successful broods is encouraging and signals that the nesting season was not a bust, said MDC Wildlife Management Biologist Dave Hoover.

"Habitat conditions on public and private lands have improved in the last five years," Hoover said. "More of the core conservation area lands are in better habitat for grassland birds. That has probably allowed prairie chickens to handle the adverse weather conditions better than in previous years."

Missouri once had hundreds of thousands of prairie chickens on vast open grasslands and areas with a mix of scattered trees and prairie plants. Today, because of prairie habitat loss, less than 100 prairie chickens remain in two main flocks, plus a few scattered birds in areas that once had flocks. That number includes prairie chickens netted and translocated from Kansas and Nebraska to Missouri in restoration efforts.

MDC biologists counted 40 prairie chickens on five different leks, or mating grounds, this spring on the Missouri side of the Grand River Grasslands. Part of the cooperative grassland effort is in adjacent Iowa. Also this spring, biologists released at Dunn Ranch 19 males and 20 female prairie chickens translocated from Nebraska. The 20 hens were given small radio collars, which assists biologists tracking birds to find nests and broods.

Tracking prairie chickens with radio telemetry has helped biologists learn about the different types of habitat useful for prairie chickens and other ground nesting birds. They need grassy areas of boot-high vegetation for nesting in spring and areas of boot- to knee-high vegetation for brood rearing in late spring and summer. Hens with broods prefer a mixture of grasses and wildflowers that are open at ground level so chicks can move easily. Prairie chickens also favor feeding and loafing in these same areas where they can easily survey their surroundings but also duck into cover if predators appear.

Biologists do not have radio collars on prairie chickens this year in the Upper Osage Grasslands in southwest Missouri. But they have used radio telemetry in past years to monitor hens translocated from Kansas to the Wah'Kon-Tah Prairie and the MDC's Taberville Prairie Conservation Area, both north of El Dorado Springs. The flocks appear to be holding steady at about 50 birds in that area based on spring lek surveys, said MDC Grassland Coordinator Max Alleger.

"We've kept our habitat in good shape," Alleger said. "Our crew does a stellar job of prairie management. We feel like the translocation project successfully stabilized our population there."

Biologists won't know how well prairie chickens have reproduced at Wah'Kon-Tah in a rainy summer until birds are counted on leks next spring. Predators and winter conditions also affect population numbers.

In spring and early summer, the cold and wet conditions are a threat to newly hatched prairie chickens because they cannot self-regulate their body temperatures, said MDC Resource Scientist Tom Thompson. Also, some nest sites may be in low areas that flood. Bobwhite quail may attempt two or even three nests during summer, which helps hedge against chick mortality. But prairie chicken hens usually only go on nest once.

"Prairie chickens are susceptible to everything, and everything eats them," Thompson said. Conservation partnerships, especially with private landowners, have benefitted prairie chickens in the Grand River Grasslands and Upper Osage Grasslands. MDC offers private lands expertise and can connect property managers with cost share grants for practices that benefit livestock, water quality and wildlife.

For information about prairie chickens on your property, visit http://on.mo.gov/1IqKVP8. That web page will also link to other information about prairie chickens in Missouri.

Property owners in the Grand River Grasslands area seeking information about MDC programs can call 660-726-3746. For MDC assistance in the Upper Osage Grasslands, call 417-876-5792.

A rainy summer is not all bad for grassland birds. The grasses and wildflowers that provide food and shelter for birds are having a banner year. Although growth that's too dense inhibits movement by birds that feed and roost on the ground. Tools such as grazing, timely haying and prescribed burns can help manage grasslands to the benefit of birds and cattle. Grasslands birds have needed help from good habitat this summer.

"In one period in May and June, out of 38 days 35 saw some rainfall," Thompson said. "That's where it gets really tough for ground-nesting birds to pull off broods."

USDA Announces Conservation Incentives for Working Grass, Range and Pasture Lands

Agriculture Secretary Tom Vilsack announced that beginning Sept. 1, farmers and ranchers can apply for financial assistance to help conserve working grasslands, rangeland and pastureland while maintaining the areas as livestock grazing lands.

The initiative is part of the voluntary Conservation Reserve Program (CRP), a federally funded program that for 30 years has assisted agricultural producers with the cost of restoring, enhancing and protecting certain grasses, shrubs and trees to improve water quality, prevent soil erosion and reduce loss of wildlife habitat. In return, the U.S. Department of Agriculture (USDA) provides participants with rental payments and cost-share assistance. CRP has helped farmers and ranchers prevent more than 8 billion tons of soil from eroding, reduce nitrogen and phosphorous runoff relative to cropland by 95 and 85 percent

respectively, and even sequester 43 million tons of greenhouse gases annually, equal to taking 8 million cars off the road.

The CRP-Grasslands initiative will provide participants who establish long-term, resource-conserving covers with annual rental payments up to 75 percent of the grazing value of the land. Cost-share assistance also is available for up to 50 percent of the covers and other practices, such as cross fencing to support rotational grazing or improving pasture cover to benefit pollinators or other wildlife. Participants may still conduct common grazing practices, produce hay, mow, or harvest for seed production, conduct fire rehabilitation, and construct firebreaks and fences.

The Farm Service Agency will accept applications on an ongoing basis beginning Sept. 1, 2015, with those applications scored against published ranking criteria, and approved based on the competiveness of the offer. The ranking period will occur at least once per year and be announced at least 30 days prior to its start. The end of the first ranking period will be Nov. 20, 2015. Visit your local USDA Service Center for more details.

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